

## CLAIMS

### WHAT IS CLAIMED:

1. A system comprising:
  - a plurality of audio modules,
  - at least one module including at least one audio output transducer and at least one audio input transducer;
  - a common control unit in communication with the plurality of modules;
  - an output device coupled to the control unit, the control unit presents at least audio information received at various of the modules, via the output device, with the presented audio indicative of the presence of individuals or selected environmental conditions in the vicinity of the respective module.
2. A system as in claim 1 which includes an audio input device, at the control unit for transmitting audio messages to be output by transducers in at least some of the audio modules.
3. A system as in claim 1 which includes at least one of circuitry or software to analyze audio received at the control unit to establish if an alarm condition is present in the vicinity of at least one of the modules.
4. A system as in claim 3 where the circuitry or software evaluates received audio with respect to at least one fire signature.
5. A system as in claim 3 which includes an audio input device, at the control unit for transmitting audio messages to be output by transducers in at least some of the modules.

6. A system as in claim 4 which includes at least one of circuitry or software to identify each of the audio input transducers.
7. A system as in claim 4 which includes at least one of circuitry or software to filter fire related noise if combined with voice.
8. A system as in claim 4 which includes speech recognition software for processing received audio.
9. A system as in claim 1 where at least some of the modules include thermal sensors.
10. A system as in claim 9 including software for processing thermal related signals received from at least some of the thermal sensors.
11. A method of monitoring a region comprising:  
sensing audio signals from spaced apart locations in the region;  
analyzing the sensed audio signals and displaying locations of origination therefore.
12. A method as in claim 11 comprising processing at least some of the received audio and recognizing the content of at least some of the received audio signals.
13. A method as in claim 12 where the recognized content comprises a fire signature.
14. A method as in claim 12 where the recognized content comprises sounds of individuals at one or more locations in the regions.

15. A method as in claim 12 which includes tracking received audio and displaying movement as the location of the source of the audio moves in the region.

16. A method as in claim 11 which includes suppressing fire sounds from at least some of the sensed audio signals in order to more effectively recognize other sources of sound.

17. A method as in claim 11 which includes sensing temperature at some of the locations.

18. A method as in claim 17 where sensed temperatures are processed to form at least one of, a time-based or location based thermal profile of the region.

19. A method as in claim 15 which includes displaying a time-based sequence of movement of the source of audio as an indicator of development of a fire in the region.

20. A method as in claim 15 which includes displaying a time-based sequence of movement of the source of audio as an indication of location of individuals in the region.

21. A method as in claim 15 which includes injecting audio into the region via at least some of the locations in the region.

22. A system comprising:  
a plurality of audio input transducers;  
at least one audio output transducer;  
a control unit in communication with the output transducer and the plurality of input transducers;  
a user interface device coupled to the control unit;

the control unit presents at least location related audio information, received at various input transducers, via the interface device with the presented audio indicative of the presence of individuals or certain environmental conditions in the vicinity of the respective module.

23. A system as in claim 22 which includes an audio input device at the user interface for transmitting audio messages to be output by transducers associated with at least some of the audio input transducers.

24. A system as in claim 22, where the control unit analyzes received audio to establish if an alarm condition is present in the vicinity of at least one of the input transducers.

25. A system as in claim 24 where the control unit evaluates received audio with respect to at least one fire signature.

26. A system as in claim 24 which includes an audio input device at the user interface for transmitting audio messages to be output by transducers associated with at least some of the audio input transducers.

27. A system as in claim 25 where the control unit uniquely identifies each of the audio input transducers.

28. A system as in claim 25 where the control unit suppresses fire sounds in order to more effectively detect human voice.

29. A system as in claim 25 which includes speech recognition software for processing received audio.

30. A system as in claim 22 which includes a plurality of thermal sensors.
31. A system as in claim 30 where the control unit presents, via the user interface, thermal related signals received from at least some of the thermal sensors.
32. A system as in claim 31 where the control unit creates and saves a plurality of time spaced, location related thermal or audio signals.
33. A system as in claim 25 when received audio includes information useable in identifying an entity in the system.